

ATLAS OF MEDITERRANEAN ENVIRONMENTS IN EUROPE: THE DESERTIFICATION CONTEXT edited by Paola Mairota, John B. Thornes and Nichola Gvesson, John Wiley, Chichester, 1998. No. of pages: xviii + 205. Price: £225.00 (hb). ISBN 0-471-96092-6.

This book has several attributes expected in an atlas: it has a large format, good quality paper, a colourful map of Mediterranean Europe on the covers and a three-figure Sterling price. Anyone anticipating that it would comprise a 'volume of maps' would, however, be disappointed. Instead, much of it has the appearance of a collection of very well produced conference posters, which is reinforced by the mainly 1–4 page, single- and multi-authored contributions, topic boxes and bullet points. The volume draws mainly on work by participating scientists of the MEDALUS Project concerned with desertification in Mediterranean Europe and funded by the European Commission. It is subdivided into six chapters and includes glossaries of terms and plant species and lists of references and MEDALUS publications. The Introduction briefly outlines desertification in Europe, European Commission-funded desertification programmes and the MEDALUS Project followed by examples of other European Commission projects. Chapter 2 deals with Semi-natural Environments and Processes including, for example, sections on recent and future climatic change and runoff and erosion. Chapter 3 considers Socio-economic Processes and Change with a

useful overview of the history of Mediterranean land use. Chapters 4 and 5 comprise respectively Field Studies and Regional Studies. Finally, there is a brief overview entitled Results and Prospects, with prospects for future MEDALUS work.

The text has few errors, though the fluency varies as might be expected with extensive editing of manuscripts submitted by many authors for whom English is not their first language. There are some shortcomings. For example, a fundamental map showing areas vulnerable to desertification is not found in Chapter 1, as might be expected, but is reproduced at a small size in section 2.6. No indication of the basis for the definition of desertification or a reference is given. A glitsh seems to have affected the production of a number of the diagrams with box symbols sprinkled amongst keys and labels. No reference is made to the figures in the text, making the three-level numbering system for figures seem superfluous. The glossary is quirky, defining, for example, garden but not rills, pipes or tunnels!

The volume represents an attractive, if expensive introduction to MEDALUS Project results, with much to interest the geomorphologist specializing in soil erosion processes. It is a pity, however, that it does not provide a fresh overview of desertification in the context of Mediterranean Europe.

RICHARD SHAKESBY
Department of Geography
University of Wales Swansea

FLUVIAL FORMS AND PROCESSES by David Knighton, Arnold, London, 1998. No. of pages: xv + 383. Price: £18.99 (pb). ISBN 0-340-66313-8.

Given the popularity of fluvial geomorphology at an undergraduate level it is, perhaps, surprising that there are not more textbooks on the discipline to choose from. In part, this must undoubtedly reflect the difficulties would-be authors face in synthesizing the huge and diverse body of relevant literature. In this respect, David Knighton is to be congratulated in producing a thoroughly updated and a highly readable edition of his 1984 book *Fluvial Forms and Processes*.

The organization of the book remains essentially unchanged. The brief introductory chapter considers how perceptions of form–process relationships change with scale and how these perceptions are reflected in different approaches to geomorphological study. Chapter 2 is concerned with drainage networks and proceeds logically from network analysis to network evolution via sections on hillslope erosional processes and channel initiation. Chapter 3, on catchment processes, is divided into two sections. The first contains a short discussion of catchment hydrology with particular reference to stream-

flow generation and flood routing, whilst the second discusses solute loads, sediment yields and sediment budgets in a succinct review of catchment denudation. Fluvial processes are considered in Chapter 4 which describes the mechanics of open channel flow, thresholds of erosion and sediment transport and depositional processes. Concepts of equilibrium and dominant discharge are introduced in Chapter 5 which goes on to consider cross-section morphology, bedforms, channel pattern and channel gradient. The book closes with a chapter on the response of fluvial systems to environmental change and anthropogenic impacts.

The emphasis of the book remains on rivers as historical, rather than physical systems. There is, therefore, far more on channel form and channel adjustment (185 pages) than on channel processes (45 pages). Although there is some attempt to link the two perspectives, the rather cursory treatment of processes makes it difficult. Indeed, many processes are discussed either too loosely or too briefly for them to be understood and their significance fully appreciated without some prior knowledge. The book's strength, therefore, lies in the way it links empirical observations to geomorphological concepts, rather than physical principles.

The book is clearly written and incorporates many new diagrams, line drawings and tables of compiled data and